

Operator's manual

DVB Satellite Receiver

UFS 702sw/si



KATHREIN
Antennen · Electronic

Preface

Dear customer,

This operating manual is intended to help you make the fullest use of the extensive range of functions offered by your new satellite receiver.

We have tried to make the operating instructions as easy as possible to understand, and to keep them as concise as possible. To help you understand particular specialist terms that cannot be translated, we have added a short glossary at the end of the manual.

The power switch is an environmentally friendly feature. If you will not be using your receiver for a longer period, you should use the power switch to disconnect it from the power supply and save energy. For shorter breaks, you can switch the receiver to standby on the remote control, which uses only a minimal amount of energy.

We wish you good reception and much pleasure using your new DVB satellite receiver.

Yours,

The KATHREIN team

Important Information

The channels available on the satellites and transponders are subject to continual change. If changes do occur, the new channels have to be set in the receiver because the factory preset programming corresponds to the status on the date of manufacture. The information for these settings can be found on the Internet or in relevant magazines.

Your receiver is factory fitted with the latest software version. We are, however, constantly working on adapting the software to the wishes of our customers and to developments in technology. The "Software and Channel List Update" section contains additional information.



Please keep the original packaging in case you need to return the product at any time!

Make a note of the receiver's basic settings, so as to be able to restore them if necessary!

DiSEqC™ is a trademark of Eutelsat.

UFO®*micro* and UFO®*mini* are registered trademarks of KATHREIN-Werke KG.

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Safety instructions - important notes

This page contains important instructions for putting the device into service and installing and connecting it.
Read these instructions with care before putting the device into service.



Power cable

Make sure you do not damage the power cable. Devices with damaged power cables must be disconnected (by pulling the plug) and repaired by a technician before being restored to service. Only use the supplied mains adapter (as intended)!

There is a danger of life-threatening electrical shocks!

Cleaning

Pull the power plug before cleaning the device. Use a dry cloth for cleaning and only clean the surface. Do not under any circumstances open the device.

There is a danger to life due to electrocution if components are touched within the device!

Playing children

Take care that children do not insert objects in the ventilation slits.

There is a danger of life-threatening electrical shocks!



Earth connection

The aerial system should be connected to earth or to the potential equalisation according to instructions. Observe EN 60728/11 and any national regulations in the process.

There is a danger due to overvoltage or lightning!

Mains voltage

Only operate the device with the specified mains voltage (on the back of the device or on the external mains adapter). The device may only be connected to the mains and switched on after establishing the connections to the aerial and the television set or to the cable network and the PC.

There is a danger of fire if the mains voltage is too high!

Repairs

Have your device repaired by qualified technicians only. No warranty claims will be accepted if the device is opened and an attempt is made to repair the device without any authorisation. The electrical safety of the device can be put at risk by handling the device inappropriately.

The manufacturer assumes no liability for any accidents of the user while the device is open!



Connections

Incorrect wiring of the connections can result in malfunctions or damage to the device!

Long periods of absence / Thunder storms

Always switch of the device at the mains switch in the event of long periods of absence or thunder storms. You can disconnect the device from the mains by pulling the power plug if your device does not happen to have a mains switch. This also applies to any other devices connected to the device. We also recommend disconnecting cable networks. Observe any timer programming procedures (receiver) and switch the device back on again in due time before recording begins.



Place of installation

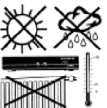
Every electronic device generates heat. The heat generated by the device is within an acceptable range however. Sensitive furniture surfaces and veneers may change their colour in the course of time due to the constant exposure to heat. In the same way, the feet of the device may cause treated furniture surfaces to change their colour. If necessary, place the device on an appropriate firm and flat base.



Ventilation

The heat generated in the device is discharged sufficiently. Nevertheless do not install the device in a cupboard or on a shelf with insufficient ventilation. Never cover the ventilation slits of the device!

Do not put any objects on the device and keep a clearance of at least 10 cm above the device so that the generated heat can be discharged without any difficulty.



Humidity, insulation, heat

Protect the device against humidity and dripping and splashing water. Do not place the device near the heating, expose it to the sun or operate it in damp rooms.

Receiver features

The UFS 702si and UFS 702sw receivers are suitable for receiving FTA digital satellite TV and radio programmes. In addition to providing high-quality pictures and sound, these receivers also feature an attractive design in a modern housing. Despite their small size, the receivers have all of the features of large receivers, such as an electrical and optical audio output for Dolby Digital (AC 3), videotext (teletext) with memory for 800 pages, a 16-character alphanumeric display for programme names, radio data and much more.

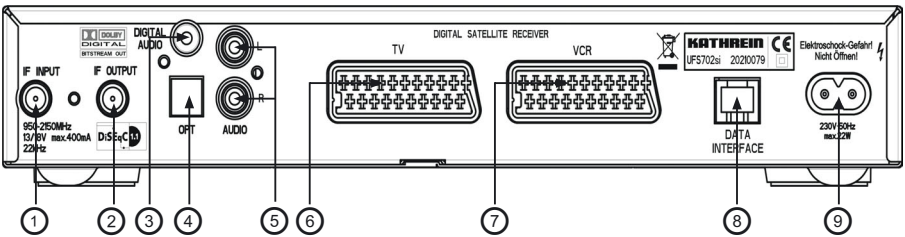
Controls, displays and connections

This section provides a brief description of all the controls, displays and connections. The button symbols presented here can also be found in the description of the operating steps.

View of front panel (flap folded down)



View of rear panel



Front panel controls and displays

1. On/Off switch (with mains disconnect)
2. TV/R button for switching between TV and radio mode
3. 16-character alphanumeric display for channel names, radio data etc.
4. Channel down button
5. Channel up button

Rear panel controls and displays

1. LNB input
2. LNB loop-through input
3. Electrical data stream output (SPDIF/ Sony Philips Digital Interface Format) for Dolby Digital AC 3 audio
4. Optical data stream output (SPDIF/ Sony Philips Digital Interface Format) for Dolby Digital AC 3 audio
5. Audio outputs (L/R) - cinch sockets
6. Scart socket for TV connection
7. Scart socket for VCR connection
8. 6-pin modular socket with RJ 11 port for serial data transfer in service mode or connection for remote infrared receiver
9. Mains power cable

Data cable

Receiver modular

PC Connection sequence

socket (8) Connection sequence

Pin 6 =	RXD		RXD
Pin 5 =	TXD		TXD
Pin 2 =	GND		GND

Controls, displays and connections

LCD Display

The channel number and channel name are displayed on a 16-character LCD display.

P12- MDR-FERNSEH

Display of TV channel and channel name during numerical entry (channel selection)

P12 MDR-FERNSEHE

Display of TV channel number and channel name upon completion of numerical entry.

MDR-FERNSEHEN

Display of programme name during operation, when all other information has been processed.

R1-- Rock Antenn

Display of radio programmes during entry

Rock Antenne

Display of radio programme name during operation

NDR 1 Niedersachsen

Information that takes up more than 16 characters is displayed in scroll mode i.e. the area marked grey is moved to the left

The following information is also displayed as scrolling text:

10:05-12:00 Philharm

- **Start** and **end time** of the current programme
- **Name** of the current programme


12:00-12:05 Nachric

- **Start** and **end time** of the next programme
- **Name** of the next programme

▶ Das Erste

Display when device is muted (🔇)







TV-Mode

Display when TV mode is activated using the  button (green). The picture and sound then come from the TV set itself (e.g. via cable) or from another device attached to the TV set

VCR-Mode

Display when the device is transferring a picture and sound signal from the video recorder to the TV set.














! Inntal-Radio



Important: If you open a menu or information window in radio or TV mode using the ,  (red),  (yellow) or  buttons, the receiver no longer responds to the  buttons. Press the  button to close the window!

Important note on setting up receiver on a UFO[®]micro system

When registering the receiver to a UFO[®]micro single-cable matrix EXU 544, you must do the following:

- Connect the receiver to the TV set, but do not yet connect it to the ESU 32 antenna socket.
- Perform a UFO[®]micro reset on the receiver as described below.

1. Press the  button to switch to the main menu.
2. Press the  buttons to get to the installation menu and confirm your entry by pressing .
3. Press the  buttons to get to the DiSEqC™ menu and confirm your entry by pressing .
4. Press the  buttons to select the “UFO” option.
5. In the UFO menu press the  buttons to select “UFO[®]micro”.
6. Press  and change the selection to RESET with the  buttons, then confirm your entry by pressing .
7. Press  to exit the UFO menu (press  to confirm the changes).
8. Press  three times to get back to the starting point.

- Press the  button to switch the receiver to standby mode.
- Now you can connect the receiver to the antenna socket.
- Press the  button to switch the receiver on.
- The registration is then performed automatically – the screen briefly shows: “UFO[®] micro active”.

Connection and set-up

The following section is intended specifically for specialist dealers. You only need to pay attention to this section if you are carrying out the installation yourself.

The “Connection examples” section provides a sample configuration.

Do not connect the unit to the mains until all installation work has been properly carried out.

Refer to the information in the “Safety instructions” section.

Connecting the unit

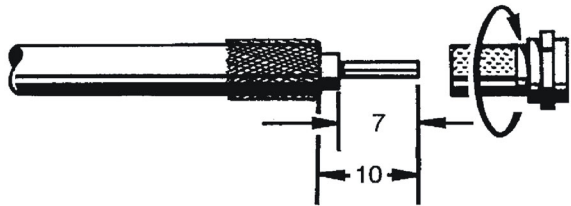
Sat IF Connections



Connect the Sat IF inputs on the receiver to the satellite reception system.

Use coaxial cable with an F standard connector.

If the F standard connectors are not yet fitted on the cable, strip the insulation from the cable as shown in the following illustration and carefully twist the F standard connectors onto the ends of the cables until they are securely fitted.



When fitting the connector, make sure that no wires from the braiding are touching the inner conductor, so no short circuit can occur.

The quality of the reception signal depends on the connection.



Reception requirements



Make sure that your own satellite antenna system is equipped at least with a universal LNB for digital reception in the high-band range.

Reception system presets

The presets for the control signals have been made for standard reception systems, i.e. 14/18 V for polarity reversal and 22 kHz switching signal for low/high band changeover on multi-feed reception systems.

The preset will need to be changed in the installation menu under “DiSEqC™” if tone burst switching matrices are used in the reception system. Refer to the section headed “Installation menu”, “DiSEqC™”. Always follow the operating instructions for the matrix used.

Connection and set-up

TV and Video recorder connection



Connect the satellite receiver (TV Scart socket) and the TV set using a Scart cable (see “Connection example”).

If your TV has a stereo feature, you can receive the sound in stereo via the Scart connection.

Also connect the satellite receiver (VCR/AUX Scart socket) and the video recorder/PVR using a Scart cable.

If you are recording using an external video recorder, remember not to operate the receiver during recording, otherwise all the on-screen displays will appear on your recording.

Audio connection

If you want to play the sound on your Hi-Fi system, connect the audio cinch sockets to the input sockets on the Hi-Fi system with an appropriate cable (see “Connection example”).

Dolby connection

The Dolby Digital output (electrical/optical) is intended for connection to a Dolby Digital system (see “Connection example”).

Inserting batteries into the remote control



Remove the cover on the rear of the remote control.

Insert the two supplied batteries into the remote control.

Ensure correct polarity of the batteries; the + and – markings are indicated inside the battery compartment.

Slide the cover back into the housing until it locks in place.

Used batteries are special waste!

Do not throw spent batteries into your domestic waste; take them to a collection point for old batteries!




Electronic equipment is not domestic waste - in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27th January 2003 on used electrical and electronic appliances, it must be disposed of properly.

Please take this unit to a public collection point intended for this type of disposal at the end of its useful life.


Remote control

 Sound on/off


 ON mode, numerical input for channels, parental control etc.


 Select main menu


 (red)
Favourites list selection


 (green)
TV switching voltage and channel arrangement/pool

 Volume

 Quit menu, return to last channel


 Confirm entry, select channel list (when pressed twice)


 Cursor operation in channel pool


 Select timer menu, transfer a programme from EPG to timer menu




 Standby

 Select videotext (teletext), channel arrangement/pool


 (yellow)
Audio mode, channel arrangement/pool


 (blue)
Switch between TV/Radio, channel arrangement/pool

 Select channel information or display signal quality

 Channel selection up/down

 Cursor buttons

 Select EPG (Electronic Programme Guide)

 Set menu transparency

Remote control

Remote control RC 660




The RC 660 remote control supports up to four devices (which are supplied with the RC 660 as standard) as well as the receivers of the UFD 5xx (not UFD 552, 554, 558) and UFD 4xx families.










First switch all receivers off at the power switch.

To configure a receiver to an infrared code:

Switch on the relevant receiver.

On the remote control simultaneously press









Address 1 =  +  + 

Then switch the receiver off again at the power switch and do the same for the other units ( +  +  for second receiver;  +  +  for third receiver and  +  +  for fourth receiver)

Make sure only one receiver is on at a time!

To switch the remote control to an infrared code:

When you have configured all receivers to their infrared code, to switch between units on the remote control do the following:

For the first receiver's remote (address 1) press  + ; for the second receiver  + ; for the third receiver  + ; and for the fourth receiver  + .

 +  (red) = Kathrein UFD 5xx code for remote control RC 400

The RC 600 and RC 650 remote controls cannot be replaced!

Operating instructions

Menu concept

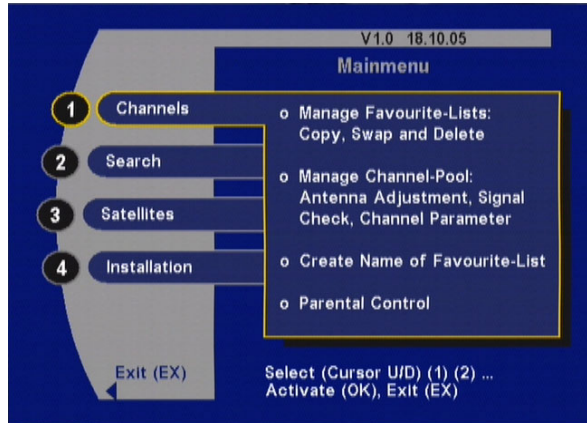
The structure of the menu concept is based on logical operating sequences.

You will find detailed descriptions of the selected menu items in the relevant sections of the operating manual!

Note:

The selected menus, sub-menus and options, as well as the parameters to be set, are each highlighted in colour or by a border. The menus are self-explanatory.

Pay attention to the bar at the bottom of the on-screen display. This provides hints on what to do next.



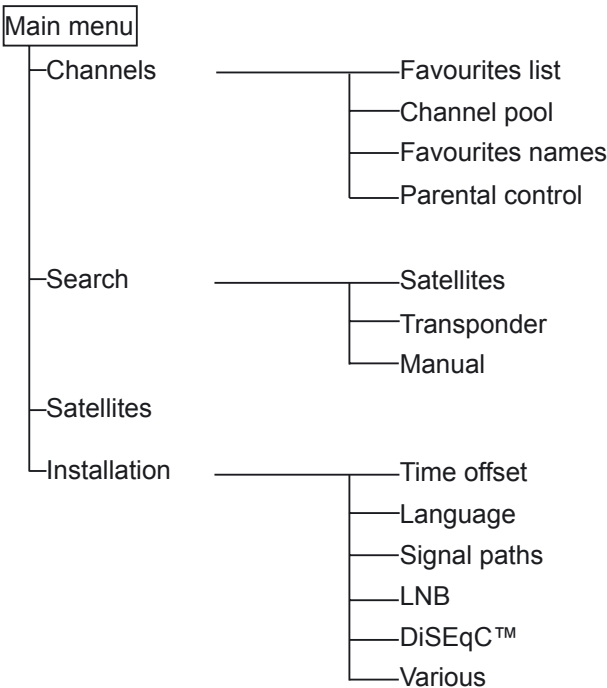
Press the **(MENU)** button to access the main menu, and use the **(▲▼)** buttons to select the sub-menus.

Press the **(OK)** button to access the sub-menus. Use the **(▲▼)** buttons to select the sub-menu options.

The settings under the various options are made either by pressing the **(◀▶)** buttons or using the number pad. The main menu, sub-menu and individual options can be exited step-by-step using the **(EXIT)** button. After each change, you are asked whether you want to confirm **(OK)** or cancel **(EXIT)** the changes.

Operating instructions

Menu tree



Language selection - OSD

The language for the on-screen display is set as follows:

MENU → **▲▼** → Installation → **OK** → Language → **OK** → **OK**
→ **◀▶** → English → **OK**.

The languages available are German, English, Italian, French, Dutch, Portuguese, Spanish and Turkish.

It is also possible to change the character set.

Available options: Latin, Cyrillic, Arabic, Greek, Hebrew, Standard, Auto. "Latin" is preset.

Settings are made in the same way as the OSD language.

Once you have finished changing the settings, exit the menu with the **EXIT** button and press the **OK** button to save.

On-Screen Displays (OSD)

Channel information

TV channel information

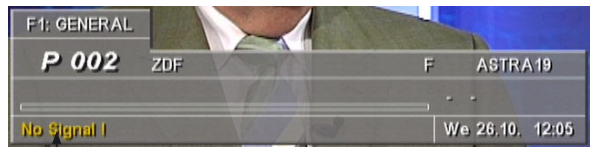
The screenshot shows a TV OSD for channel ZDF. The top bar displays 'F1: GENERAL' and 'P 002'. Below this, the channel name 'ZDF' is shown. The current program is 'ZDF-Mittagsmagazin' with a duration of 12:00-13:00. The next program is 'heute - in Deutschland' with a duration of 13:00-13:15. The OSD also shows 'F ASTRA19' and 'A DolbyDigital'. The day of the week and time are 'We 26.10. 12:04'. Annotations include: 'Selected channel or favourites list' pointing to 'P 002'; 'Channel number' pointing to '002'; 'Start and end time of the current and next programme' pointing to the time bars; 'F = FTA (unencrypted) channel / \$ = encrypted channel' pointing to 'F'; 'One or more Dolby Digital channels available' pointing to 'A'; 'Selected satellite' pointing to 'ASTRA19'; 'A = two or more language channels (soundtracks) available (i button, yellow)' pointing to 'A'; and 'Day of week with time' pointing to 'We 26.10. 12:04'.

Channel information is shown for a few seconds each time the channel is changed (duration can be changed under “Installation”, “Various”, “Display time”) or continuously with the **i** button (if not set to signal quality).

Radio channel information

The information for the current radio channel has the same layout.

Error signalling



“No signal” indicates that an error has occurred in the reception system or in the receiver settings, or that the transponder is not transmitting.

Check the Sat IF connection and the LNB configuration. If you have changed settings, compare them against the basic settings (if you made a note of them as suggested).

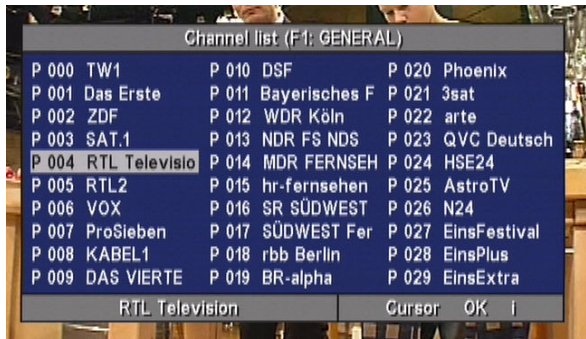
On-Screen Displays (OSD)

Channel hopping display



Press the **OK** button to display the last four selected channels. Press the relevant cursor button (**◀▶▶▶**) to select a channel.


Channel list – TV/radio



Press the **OK** button twice to display a list sorted by channel number (see “Channel selection”, “Channel list”). Press the **EXIT** button to exit the list.


Channel selection

Switch between TV/radio mode

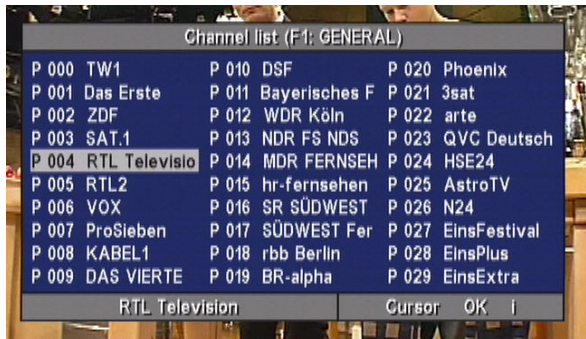
Press the  button (blue) to switch between TV and radio mode and then select the respective channels. Channel selection works in the same way in both modes.






Channel selection using number buttons and buttons

Use the number buttons to select a channel directly ("0" is also a channel number).

Use the  buttons to select the next or previous channel from the currently selected favourites list.

Channel list – TV/radio



Press the  button twice to display a list sorted by channel number. Press the  button to display the channel list in alphabetical order. Press the  button again to sort the channel list by channel number again. Select the required channel with the  buttons followed by the  button.

Channel selection

Channel hopping display

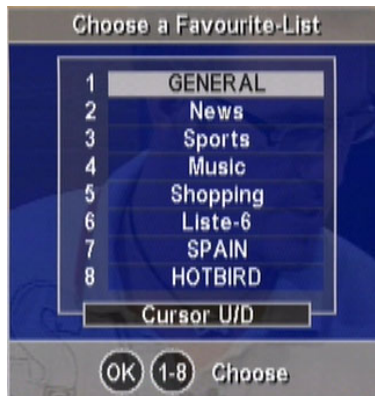


Press the **OK** button to display the last four selected channels. Press the relevant cursor button (**◀▶▶▶**) to select a channel.

Select last channel

Press the **EXIT** button to switch between the last two selected channels.

Favourites list



Press the **FV** button (red) to display the favourites lists. The required favourites list can either be selected directly using the number buttons or with the **▲▼** buttons followed by the **OK** button. The receiver automatically switches to the last channel viewed in the selected favourites list.

Use the number buttons or the **▲▼** buttons to continue channel selection. Press the **OK** button twice to display the list of channels allocated to the selected favourites list. Now select the required channel as described under "Channel list – TV/radio".

EPG - Electronic Programme Guide

The EPG (Electronic Programme Guide) displays information on the current and upcoming programmes.

The information provided is determined by the programme providers, and differs widely from programme to programme. Many programmes are broadcast with no usable ancillary information (SI data). The same is true with regard to the programme previews.

Some programme providers transmit no data, others offer a programme preview with additional programme information days in advance.

Press the **EPG** button to access the EPG. The following display appears (example):

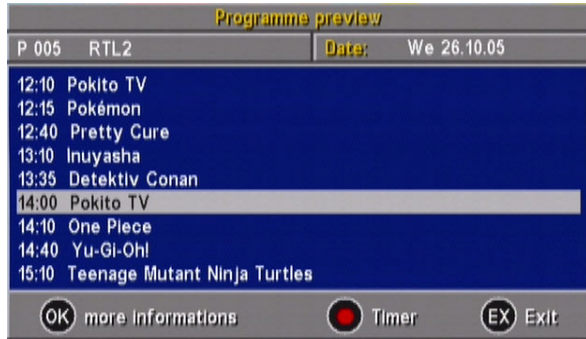



You now have the following options:

- Press the **EPG** button to see information on the next programme
- Press the **OK** button to see a programme preview of the currently selected channel. Depending on the programme provider, you are shown a programme preview covering the current day or several days in advance (see picture).

Use the **▲▼◀▶** buttons to scroll forwards or backwards in the programme preview on a line-by-line or page-by-page basis. Once you have selected the programme you want, you can press the **OK** button to view more details (if available). If no ancillary information is available a message is displayed telling you so.

EPG - Electronic Programme Guide



Press the  button (red dot) to transfer a programme from the programme preview directly to the timer menu (see "Timer").


Press the  button to exit the EPG.

Channels menu – channel management

Digital television technology makes a large number of channels available. A reception unit suitable for the ASTRA 19° East und EUTELSAT/HOTBIRD 13° East satellites allows you to receive over 800 FTA TV and radio programmes.

To allow you to manage and control this range of channels, the memory for the lists is divided into two sections:

- one channel pool for radio and TV respectively, each with 2000 programme memory positions
- 8 assigned favourites lists for radio and for TV respectively, each with 1000 programme memory positions

Use the  button (blue) to switch between TV and radio.


New channels found during a search are stored in both the channel pool and in the currently selected favourites list, at the end of the memory area for the selected satellite.

This area is set with empty channels, known as placeholder channels, at the factory.

Pxxx ~ ~ ~ ~ ~ Placeholder for Astra 19° satellite

Pyyy ~ ~ ~ ~ ~ Placeholder for Eutelsat 13° satellite

When the channel pool is sorted alphabetically, the placeholder channels appear at the end. You can also increase the number of placeholders by copying a placeholder repeatedly from the channel pool to the favourites list.

After the search you should call up the “Channel arrangement” sub-menu to look through and assess the new channels. Uninteresting channels, test cards or any other “junk programming” can be deleted from the left-hand window with the  button (green).

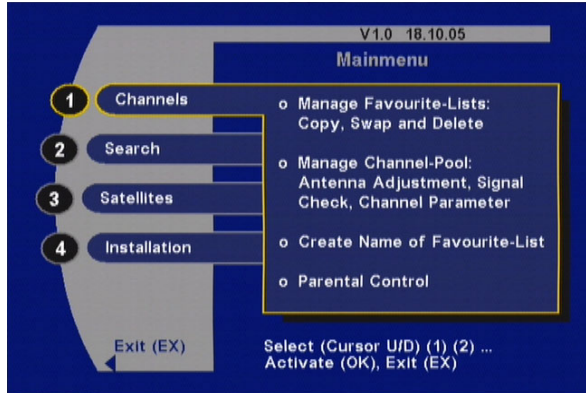
A major advantage of the double memory organisation (channel pool and favourites list) is that the “junk programming” that is deleted from the list remains in the pool so it is not found again during the next search.

Another advantage is that channels that are accidentally deleted can be copied back into the favourites list from the channel pool.

Channels menu – channel management

Path: MENU>Main menu>Channels>

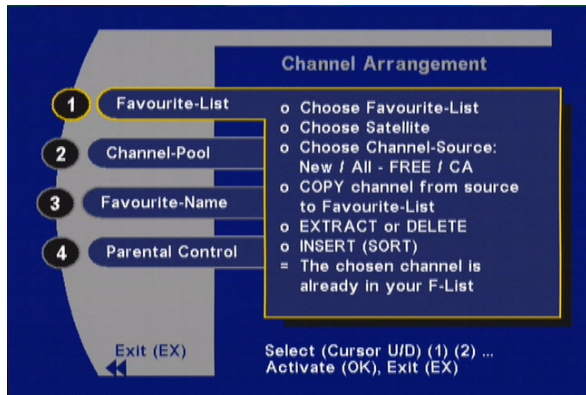
Select the “Channels” menu using the menu button **MENU**, the **▲▼** buttons on the main menu and **OK**.



Use the **▲▼** buttons to select the further options. If there is another sub-menu layer, press the **OK** button to open it. If there is no further sub-menu layer, access the selection menu with the **OK** button. Settings are performed using the **◀▶▲▼** buttons or the number keys.

Once you have finished changing the settings, exit the menu with the **EX** button and press the **OK** button to save.

Favourites list/channel arrangement (move, delete, copy)



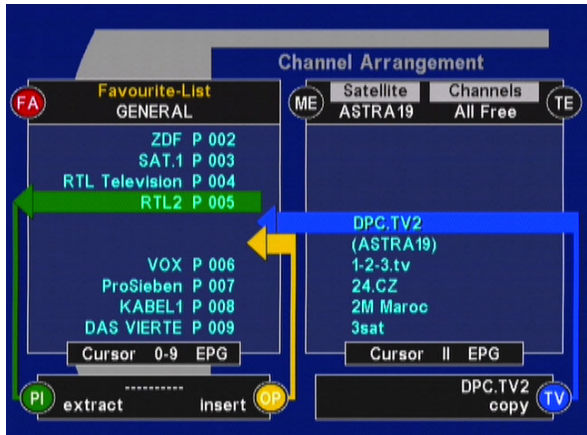
Press the **OK** button to open the menu. The following display appears (example):

Channels menu – channel management

In the “Channel arrangement” menu, the following actions can be performed on channels:

- Move
- Delete
- Copy

The “Channel arrangement” menu shows the currently selected favourites list in the left-hand window and the channels available in the pool in the right-hand window.



Use the arrow buttons and to switch the focus between the left-hand and right-hand windows – a yellow background behind the list heading indicates that a window is active.

(left-hand window active “Favourites list” and right-hand window active “Satellite Channels”)

Navigate in the currently selected list using the arrow buttons and .

The channels in the favourites list (left-hand window) are displayed with the channel numbers. Items in the list can also be set directly by entering the channel number with the number keys




Press the button (red) to select a different favourites list.

- After a search, the new channels are stored both in the channel pool and in the current favourites list (left-hand side of picture above)
- Select the “Channel arrangement” sub-menu
- The newly found channels can be seen at the end of the selected favourites list.

Channel menu – channel management










You should delete uninteresting channels, test cards or any other “junk programming” from your favourites list.

Note:






Use the  button to switch the menu display transparency between variable and fixed (fixed is non-transparent). In 'var' mode the transparency can be increased or reduced using the   buttons.

This function is very useful when deleting, moving and inserting channels, because with a high transparency setting it is easy to quickly see the type and content of the channels in the background.

Move






- Select the favourites list in the left-hand window using the  button.
- Move the required channel into the green bar using the  and  buttons or by entering the channel number
- Use the  button (green) to move the channel on to the clipboard (remove)
- Select the target area using the  and  buttons or by entering the channel number
- Move the channel out of the clipboard and into the target area (yellow bar) using the  button (yellow)
- Exit the menu with the  button and confirm with .

Delete


- Move the channel to be deleted into the green bar using the  and  buttons
- Move the channel from the green bar onto the clipboard with the  button (green)
- Exit the menu with the  button and confirm with  (a channel that is deleted from the favourites list in this manner remains available in the channel pool, meaning that it could be inserted back into the favourites list if necessary).

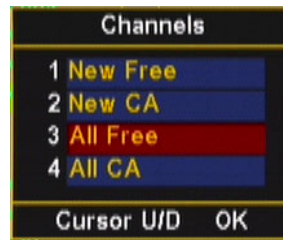
Channel menu – channel management




Copy

- Select the favourites list in the left-hand window using the  button.
- Select the target area for the channels to be inserted with the  and  buttons or by entering the channel number – the blue arrow points between the two channels where the new channel will be inserted
- Select the channel pool in the right-hand window using the  button
- If necessary, select a different satellite using the  button.



- Use the  button to select a list – “New Free”, “All Free” etc.





- Move the required channel into the grey bar using the   buttons
- Copy the selected channel into the favourites list using the  button (blue)

Note:

The unit recognizes channels that are already stored in the current favourites list – a “=” sign is then displayed in the blue arrow between the two windows.

- Exit the menu with the  button and confirm with 

Note:

Channels that you have accidentally moved or deleted (e.g. by pressing the  button (green) repeatedly) can be restored by exiting the menu with the  button and then

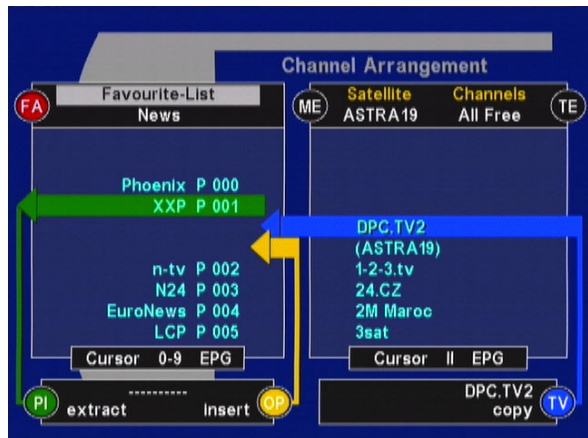
Channel menu – channel management

answering the query “Save changes?” with “NO” i.e. press the **EXIT** button again.

The “Move”, “Delete” and “Copy” operations that are displayed in channel management can also be performed on channel blocks.

Move channel block










- Select the favourites list in the left-hand window using the **FA** button.
- Move the first channel of the block to be moved into the green bar using the **▼▲** buttons or by entering the channel number
- Activate the start of the block using the **EPG** button (a “B” is displayed)
- Use the **▼▲** buttons or enter the channel number to select the end of the block (all channels in the block are then marked with “B”)
















- Use the **PI** button (green) to move the marked block on to the clipboard (remove)
- Use the **▼▲** buttons or enter the channel number to select the target area i.e. the area to which you want to move the block
- Move the channel block out of the clipboard and into the target area (green bar) using the **OP** button (yellow)
- Exit the menu with the **EXIT** button and confirm with **OK**.

Channel menu – channel management

Delete channel block

- Select the favourites list in the left-hand window using the  button
- Move the first channel of the block to be deleted into the green bar using the   buttons or by entering the channel number
- Activate the start of the block using the  button (a “B” is displayed)
- Use the   buttons or enter the channel number to select the end of the block (all channels in the block are then marked with “B”)
- Use the  button (green) to move the marked block on to the clipboard.
- Exit the menu with the  button and confirm with 

Copy channel block (copy from channel pool to favourites list)








- Select the favourites list in the left-hand window using the  button
- Select the target area where you would like to insert the new channels with the   buttons or by entering the channel number – the grey arrow points between the two channels where the channels will be inserted
- Select the channel pool in the right-hand window using the  button
- Select another satellite if necessary
- Use the  button to select a list – “New Free”, “All Free” etc.
- Move the first channel of the block to be inserted into the grey bar with the   buttons
- Activate the start of the block using the  button (a “B” is displayed)
- Use the   buttons to select the end of the block to be inserted (all channels in the block are then marked with “B”)
- Copy the selected channel into the favourites list using the  button (blue)
- Exit the menu with the  button and confirm with 

Channel menu – channel management

Change names of favourites lists

Path: MENU>Main menu>Channels>Favourites names

You can also change the name of the favourites lists as required:

- Select the entry field to be changed {Name} using 0...9 or the  buttons and activate it with the  button
- Use the  buttons to select the letters (upper and lower case) or numbers
- Use the  buttons to move the input position to the right or left
- After entering the new name, deactivate the entry field with the  button
- Exit the menu with the  button and confirm with 

Channel pool

Path: MENU>Main menu>Channels>Channel pool



The channel pool contains all of the channels of the selected satellite in alphabetical order.

Note:

The channel pool is generally PIN protected, enter the 5-digit PIN.


Use  to select the satellite.



The sub-selection “New Free”, “New CA”, “All Free” or “All CA” is made with the  button.


The channels in the channel pool are sorted in alphabetical order. Use the  and  buttons to navigate across lines and columns and select the required channels. All selected channels are immediately set by the receiver and displayed in the background.


Channel menu – channel management


Delete one channel/all channels in channel pool

If necessary, use the  button to make the menu transparent.

Use the  and  buttons to navigate across lines and columns and select the required channels. All selected channels are immediately set by the receiver and displayed in the background.

If necessary, use the  button to make the menu transparent.

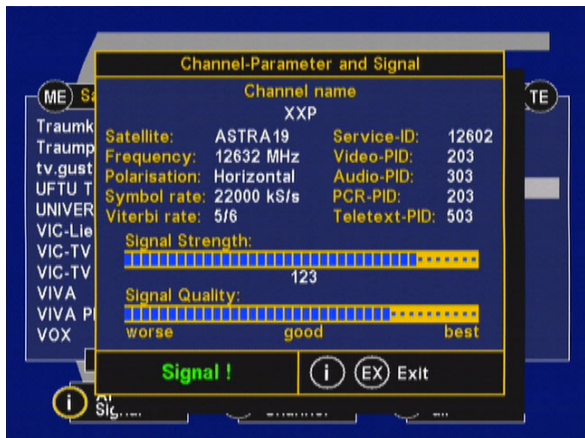
Use the  button (green) to delete the selected channel.


Use the  button (blue) to delete all channels in the channel pool.



Channels that are deleted from the channel pool are only found again when the satellite search is repeated.

Antenna signal and reception parameters button



The “Antenna signal” sub-menu () is used to align your parabolic antenna optimally, if required. Rotate the antenna so that the signal strength and reception quality scales are at their optimum.

In the event of very weak signals the signal strength scale may even fall to “0”. In this case optimise the signal with the scale for the reception quality.

If “**Signal !**” or “**L**” is shown in the display, a valid digital signal is being received.

However, if “**No signal**” appears in the menu or “-” appears instead of the “**L**” on the right-hand side of the display, then

Channel menu – channel management

either no signal is being received or the signal is not valid (e.g. if the antenna is incorrectly aligned to a satellite with analogue signals).

F:126 E:29 L

The signal strength and reception quality values are also shown on the display.

F:126 E:00 –

Signal present, invalid digital signal.
(Cause: the antenna is aligned to an incorrect satellite or receiving a faulty channel – switch to another channel if necessary)

Parental control (child lock/PIN)

Path: MENU>Main menu>Channels>Parental control


Lock:

OFF Parental control is deactivated

ON Parental control is activated i.e. when a marked channel is selected, you are requested to enter your PIN (five-digit security code)

To change the PIN code:

The delivery status of the PIN is 00000.

To change the PIN, activate the “PIN” menu item with the  button

1. Enter the current PIN (00000 when delivered)
2. Enter the new PIN (xxxxx)
3. Enter the new PIN again (xxxxx)

Do not forget your PIN. Your unit can only be reset to delivery status by your dealer/customer service.


When the unit is in delivery status, all channels are enabled. However, each channel can be marked individually, preventing unauthorised access when parental control is activated (**ON**).


Since the channels in the channel pool are available to all favourites lists, parental control marking must also be performed on the channels in the channel pool.




Channel menu – channel management

Path: MENU>Main menu>Channels>Favourites lists

Select the right-hand window with the  button (“All Free” sub-selection) and mark the necessary channels with the

 button (Pause).

A question mark is placed in front of the “secured” channel (? channel name). To delete a “?”, move the marked channel

back into the grey bar and press the  button again.

Alternatively, channel marking can be performed directly in the channel pool. Use the following path:

MENU>Main menu>Channels>Channel pool

When parental control is activated, the five-digit pin must be entered each time a marked channel is selected.

Note:

To ensure the effectiveness of the parental control, the PIN must be entered when certain menus are displayed if parental control is active.

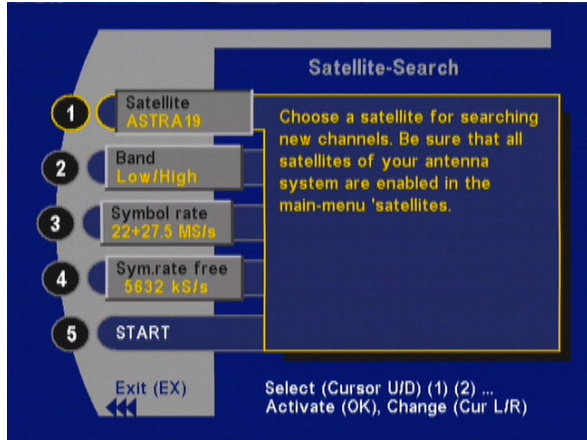
To deactivate the parental control (e.g. of an evening) switch the selection field “Lock” to OFF. This does not change the “?” markings and these become active again when parental control is reactivated.

Search

Satellite search

Path: MENU>Main menu>Search>Satellites

During the satellite search, all of the channels on a satellite are searched for.



The newly found programmes are also stored in the programme list, which is called up by pressing **OK** twice. However, unlike in programme pool, these are not attached to the end of the list, but rather to the end of each available broadcasting satellite programme. Here, the “~~~~~” placeholders available in the programme list are overwritten by the new programmes. For “ASTRA 19° East” satellite programmes, the programme positions from 0-299 are reserved, for the “HOTBIRD (EUTELSAT) 13° East” satellite programmes, programme positions 300 to 799 are reserved.

Press the **OK** button to be able to select the satellites enabled in the “Satellites” menu using the **◀▶** buttons. Press the **OK** button again to confirm your choice.

- Use the **▼▲** buttons to select “Start” and start the search by pressing the **OK** button.

Use the **▼▲** buttons to choose whether to search solely for FTA channels, solely for encrypted channels or for both FTA and encrypted channels.

Press the **OK** button to start the search.

When the receiver displays “End” in the search window, exit the window with the **EXIT** button. Import the channels into the pool by pressing the **OK** button.

Transponder search

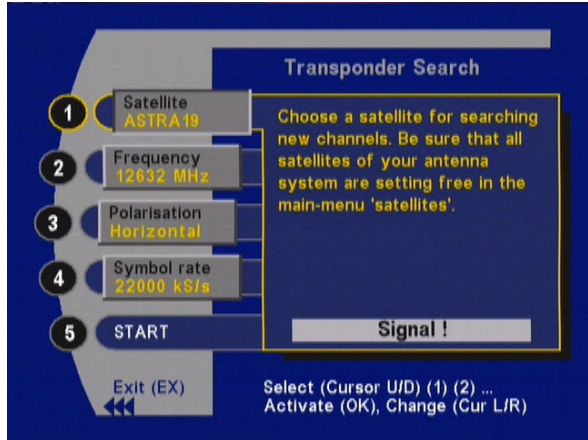
Path: MENU>Main menu>Search>Transponder

During the transponder search, all of the channels on a transponder are searched for.

Search

The newly found programmes are also stored in the programme list, which is called up by pressing **OK** twice. However, unlike in programme pool, these are not attached to the end of the list, but rather to the end of each available broadcasting satellite programme. Here, the “~~~~” placeholders available in the programme list are overwritten by the new programmes. For “ASTRA 19° East” satellite programmes, the programme positions from 0-299 are reserved, for the “HOTBIRD (EUTELSAT) 13° East” satellite programmes, programme positions 300 to 799 are reserved.

Manual input (for experts)



If the parameters (satellite, frequency, polarisation, symbol rate) of the channel being searched for are known, the transponder search can be used.

If, for example, a new channel launches within a known channel group, a channel from that group can be preset by selecting the channel. The necessary parameters are then imported in the transponder search.

If “No signal” is displayed on the “START” line, reception is not possible. Check the “Satellite”, “Frequency”, “Polarisation” and “Symbol rate” parameters again. The search can only be started if “Signal!” is displayed.

- Start the search by pressing the **OK** button
- Encrypted channels are indicated by “\$”. Channels that you do not want to import can be deleted individually with the **DEL** button (blue).
New channels are indicated by “+”. Import the channels into the pool by pressing the **OK** button.

Path: MENU>Main menu>Search>Manual

If neither the satellite search nor the transponder search finds the channel you are looking for, you can enter all the relevant reception parameters in the “Manual input” function. Manual input is very useful, for example, if you know the reception data of the channel you are looking for, but the channel does not broadcast all the time.

Videotext (teletext)

When you press the **TEXT** button, the receiver processes the videotext/teletext service data for your TV set to display, even when the signal is encrypted.

During the search, the page which is being searched for is displayed in the top left-hand corner with the time and date displayed at the top right.



When the search is finished, the videotext/teletext being broadcast by the relevant programme provider appears:

You have several options for calling up the desired pages:

- Input with number pad.
- Page-by-page using the **▲▼** buttons
- Press the **f** button to return to page 100
- Press the **PG** button to switch between the last two pages displayed.

Press the **⊕** button to change the transparency of the videotext/teletext. Press the **OK** button to activate special functions (e.g. double-sized lettering).

Press the **EXIT** or **TEXT** button to exit videotext/teletext.

Timer

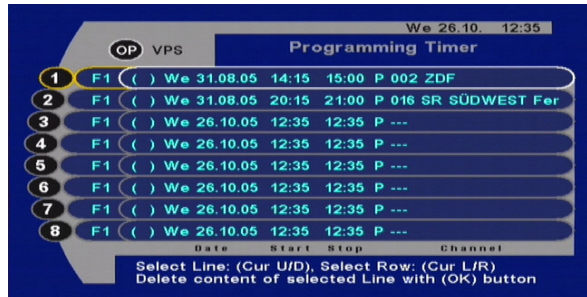
Press the **⦿** button (red dot) to access the “Timer Programming” menu. Up to 8 timer events, for TV or radio programmes, can be entered.

Note:

Please note that if you select “VCR-Record = Standard” the video recorder must also be set to identical recording times.

Manual Timer Setting

If the timer recording is started in stand-by mode, the unit switches back to stand-by when recording is finished.



With the number pad or the **▲▼** keys, select the next free input field (in the figure to the left, it is timer number two). One after another, select the input field for date, start and stop time and the programme to be recorded with the **◀▶** keys (the input field is highlighted in white). With the **OK** key you activate the input in the selected field (the field is highlighted in black). Enter the relevant data either directly with the number pad or by switching forward with the **◀▶** keys and accepting the inputs with **OK**. After entering the date, start and stop time and the programme to be recorded, you can exit the timer menu with the **EXIT** key or enter additional timer events.

Automatic Timer Setting

If timer recording is started in stand-by mode, the unit switches back to stand-by when recording is finished.

You can also import the timer data directly from the programme listings. To do so, select the programme from the listing and then press the **⦿** button (red dot) to transfer its data into the timer. Confirm the data import into the timer by pressing **OK** again.

Deleting a Timer Event

To delete a timer event, select the relevant line in the timer using the number pad or the **▲▼** keys and then pressing the **OK** key.

Timer

VPS

“v” indicating VPS function active




The time and date are retrieved from the DVB data transmitted by the transmitter. When changing from Summer to Winter time and vice versa, please adjust the "Time offset" in the "Installation" menu. For Central European Summer time = {+2 h}/ For Central European Winter time = {+1 h}

Please note that some "exotic" channels sometimes do not transmit the correct time. Check the date and time in the "Timer Programming" menu when programming.

Hinweis:



rEc

End

You can also control the timer and the video recorder by way of VPS (Video Programme System). To do so, programme the timer as usual in the EPG "Automatic Timer Setting" function or directly in the "Manual Timer Setting" menu and then press the  button (yellow) on the selected timer line to activate the VPS function. A (v) is displayed. Make sure the correct VPS time is entered in the Start column. The VPS times can also be found in many listings magazines.

When you have imported the programme you want to record from the EPG into the timer you will automatically see the start time, usually corresponding to the VPS time, and the stop time. When the VPS function is active (v) the start and stop times serve as a window within which VPS will start the programme even if it is delayed for example. The timer record function remains active as long as the VPS information is being broadcast by the channel, meaning recording may also be automatically started at an earlier point - that is, within the preset time window, such as in the event of a knockout in the first round of a boxing match, or later - outside the window - such as when a football match goes into extra time.

If you programme the timer manually from the menu, do not forget also to enter the stop time, so as to set a VPS time window. If the programme you are recording is only short (e.g. 15 minutes) in duration, choose a stop time to preset an adequate time window (e.g. one to two hours). In this way you will be sure that the VPS time window will not be exceeded if there is a lengthy scheduling change.

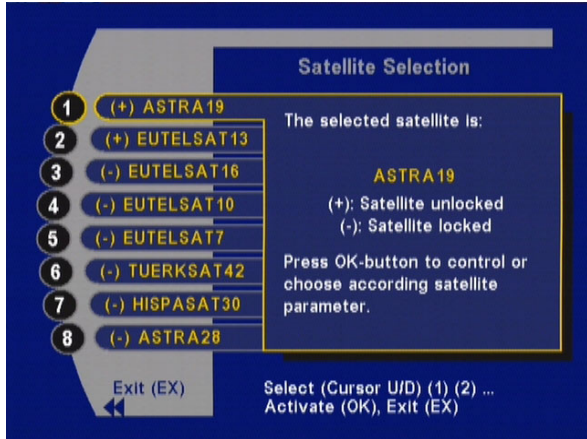
If you have unintentionally deleted a line and want to restore the original information, quit the timer menu by pressing the  button twice. Please note that no remote control commands are accepted during timer recording, to prevent OSD displays from unintentionally being recorded over the picture. The volume is set to full during recording. To indicate that timer recording is active, the unit's channel indicator shows "r E c" if a command is received from the remote control. Timer recording can be aborted prematurely only with the  = Stop key. After an abort "End" is displayed. The unit can then be operated as normal.

Satellites

Satellites (for experts)

Path: MENU>Main menu>Satellites

The satellites ASTRA 19° and Hotbird 13° are “enabled” at the factory. Another six satellites, such as EUTELSAT/HOTBIRD, are pre-programmed. When you expand your reception system, you can make the necessary settings for enabling the 6 pre-programmed satellites in the “Satellites” menu.



Only enable additional satellites when your reception system is prepared accordingly. Otherwise, a search on these satellites would once again store channels that have already been stored, thus wasting programme memory positions.

Activate the desired satellite number, e.g. using the number buttons ①...⑧ and press the **OK** button to access the input menu.

1. Enter/change name

Activate the {NAME} input field by pressing button ① followed by **OK**.

You can use the **▽**/**▲** buttons to select the letters (upper and lower case) or numbers.

Use the **◀**/**▶** buttons to move the input position to the right or left.

When you have entered the desired name, press **OK** to deactivate the input field again.

2. Enter LO1

3. Enter LO2

At the factory LO1 and LO2 are preset to 9,750 MHz and 10,600 MHz.

If the LNB-LO frequencies differ from the factory presets, enter the relevant values here. Activate with **OK** and use the number buttons **0-9** to enter the LO frequencies.

Press **OK** to finish.

Please make sure that a digital-capable LNB is installed in your reception system.

4. Enter orbit position

Note:

The "Orbit position", parameter, possible values 1-4, must be entered for control by DiSEqC™.

DiSEqC™1.0	4 sat. positions 1-4
DiSEqC™1.1	16 x 4 sat. positions (uncommitted switches) 1-16/Off

As matrix operation switches are required to operate DiSEqC™1.1, the cabling is highly complicated and should only be undertaken by an experienced installer!

Enable

{ON} The selected satellite is enabled for your reception system.

{OFF} The selected satellite is disabled.

5. Uncom.switch - Uncommitted switches in DiSEqC™-Mode

Uncommitted Switches (US) are used on special satellite reception systems to pre-select different groups.

In delivery status, the "Uncommitted switches" are deactivated = OFF.

Satellites

Setting and activation

Path: MENU>Main menu>Satellites 1...8>Orbit position

1. Select **Orbit position 1...4**
2. Select **Uncom switch**

The “Uncommitted switches” function is activated in menu item 2 = “Uncom switch”, by switching from “OFF” to a value between **1** and **16**.

Transmission takes place with the “FX” byte.

The following matrix shows the associated DiSEqC sequences:

US = OFF DiSEqC™: = [E0 10 38 FY]

US = 1...16 DiSEqC™: = [E0 10 39 FX]<25 ms>
[E0 10 38 FY]

In the DiSEqC menu (**path: MENU>Main menu>Installation>DiSEqC™**) if the option **DiSEqC™ Repeat** is set to **1**, then the DiSEqC™ sequence repeats after 100 ms.

US = OFF DiSEqC: = [E0 10 38

FY]<100 ms>[E1 10 38 FY]

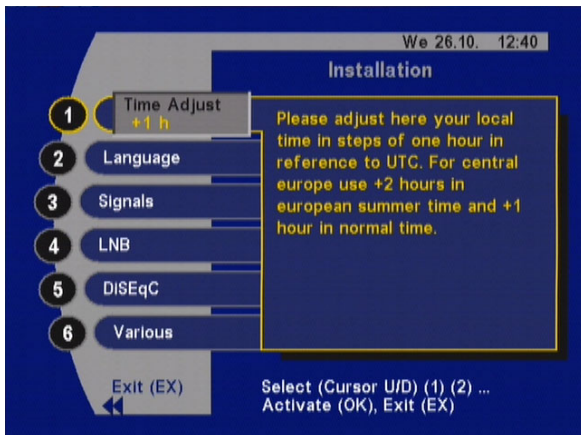
US = 1...16 DiSEqC: = [E0 10 39 FX]<25 ms>[E0 10 38 FY]
<100 ms>[E1 10 38 FY]

Enable

- ON** The selected satellite is enabled for your reception system (only the ASTRA satellite is enabled at the factory)
- OFF** The selected satellite is disabled.

Installation

Time offset



Path: MENU>Main menu>Installation>Time offset

Following power-up, or after a power outage, the time and date for the system clock (timer) are imported from the received data. To ensure the receiver's time and date correspond to the local time, the variation from the standard time must be specified.

The adjustment value (time offset) for Central European Summer Time is “+2” hours, and “+1” hour for Central European Winter Time.

Note:

Please check the time offset the first time you use the unit and when the time changes in the Spring and Autumn, and correct it as necessary.

Select the “**Time offset**” option with button **1** or with the **▼▲** button, activate it with the **OK** button and set the required time offset with the **◀▶** buttons. Confirm the change with the **OK** button.

Note:

If the time offset is incorrect, the programme times and other times will be displayed incorrectly.

Installation

Language/character set

Select language

Path: MENU>Main menu>Installation>Language

The menu languages available are German, English, Italian, French, Dutch, Portuguese, Spanish and Turkish.

Select character set (factory setting - "Latin")

Automatic character set switching is defined in the DVB standard – unfortunately not all programme providers comply with this standard at the current time, meaning that characters from an incorrect character set may appear in a text.

This unit features automatic character set switching but different character sets can be preset if required e.g. enabling a Greek text to be viewed in the correct format.

Selection: Auto-Standard-Latin-Cyrillic-Arabic-Greek-Hebrew

Signal paths (TV, VCR, picture format, record, digital audio)

Path: MENU>Main menu>Installation>Signal paths

The individual fields are activated and edited in the usual way.

Select the required input field using the ①...⑥ or ▾▲ buttons and activate it with the **OK** button.

The available parameters can then be selected with the **▶/◀** buttons and confirmed with **OK**.

TV Scart, VCR Scart

<u>TV Scart</u>	<u>VCR Scart</u>	
CVBS	CVBS	
CVBS	YC	
RGB	CVBS	(RGB offers the best TV picture quality)
RGB	YC	(Select YC for an S-VHS video recorder)
YC	CVBS	
YC	YC	

Explanation:

CVBS = Composite Video Broadband Signal

FBAS = same as CVBS

YC = corresponds to S-Video (Y: "Brightness", C: "Colour")

Installation

Picture format

4:3 If **4:3** is set, all programmes are displayed in the regular 4:3 format.

16:9 When **16:9** is set, all programmes broadcast in widescreen format, and flagged appropriately, are automatically switched to 16:9 format.

However, this function only operates if your TV set can process and display 16:9 format pictures (6 volt switching voltage).

Digital audio

Two modes are available for the digital output of your receiver:

Standard The signal at the digital output is encoded in PCM format ("**PCM**")

AC 3 If you have a Dolby Digital system, you can select AC3/Dolby Digital mode.
If your receiver receives a Dolby Digital encoded audio signal, the digital output is automatically switched to Dolby Digital format (**AC-3**).

Note:

In both modes, press button A at any time to display the "Digital/analogue audio mode" menu to check the current format of the digital output signal or make a different selection, if necessary.

VCR signals

TV > VCR (video return path)

ON When **ON** is selected, the video and audio signals from the TV socket are still transmitted to the VCR socket even in standby mode.

OFF Slightly less power is used in standby mode in the **OFF** position.

VCR signal (input signal at VCR Scart socket)

CBVS/RGB Use the **CBVS/RGB** setting when connecting a VHS video recorder or a DVD player/recorder.

YC Use the **YC** setting when connecting an S-VHS video recorder (S-Video).

Installation

VCR record

The VCR Scart socket has two different modes for automatic VCR recording with the timer function:

Standard The video signal (pin 19 on VCR Scart socket) to the VCR is always available.

Pin 8 on the VCR Scart socket (switching voltage) is switched as an input, meaning that when you press the playback button on your video recorder, your satellite receiver automatically switches the video and audio signals coming from the video recorder to the TV Scart socket via the VCR Scart socket and from there to the TV set.

For timer-controlled video recordings in standard mode you must enter identical start and end times on your video recorder and in the "Timer Programming" menu.

Sat Record The video output signal (pin 19) from the VCR is always available.

When a timer event is active i.e. when the unit switches to the channel to be recorded at the pre-programmed time, 12 V is output at pin 8 of the VCR Scart socket.

A "Sat Record"-compatible video recorder detects this voltage and automatically switches to record.

When the timer recording is finished, pin 8 is switched back to input mode and is again ready to relay the VCR signal on playback.

LNB settings

Path: MENU>Main menu>Installation>LNB

{ON} Default setting

{OFF} Operation without LNB signal (e.g. on special multi-subscriber systems)

{OFF} Default setting

In standby



On standalone systems only use the {OFF} setting, otherwise the receiver will also supply power to the LNB in standby. This may cause the power consumption of the receiver to increase from the typical value of 2 Watts to as high as 10 Watts in standby.

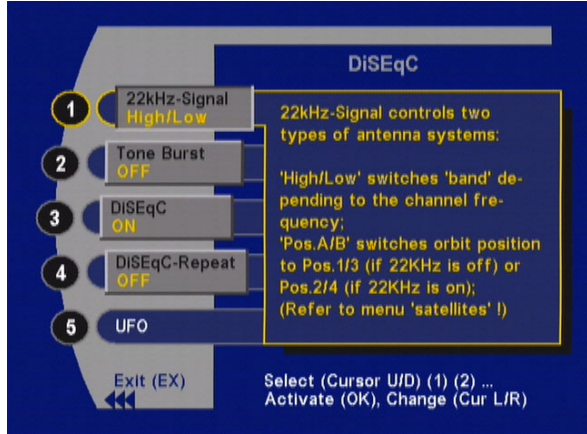
{ON} The LNB voltage remains switched on in standby e.g. to supply power in an appropriate multi-subscriber system.

Installation

DiSEqC™ (Digital Satellite Equipment Control)

Path: MENU>Main menu>Installation>DiSEqC

On the DiSEqC™ menu the control signals must be set according to the needs of your satellite system.



22 kHz signal

{OFF}	22 kHz inactive
{High/Low}	22 kHz switches between High and Low band
{Pos. A/B}	22 kHz switches between two satellites

Tone burst

{High/Low}	Activates tone burst depending on the reception frequency
{Pos. A/B}	Selects orbit position 1/3 or 2/4
{Opt. A/B}	Switches between orbit position 1/2 or 3/4

DiSEqC™

{OFF}, {ON}	Select {ON} if you want to operate the receiver on a DiSEqC™ suitable satellite reception system.
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DiSEqC™ repeat






	(used for cascaded switching matrices)
{OFF}	No repeat of DiSEqC™ signal
{ 1 }	The DiSEqC™ signal is repeated once
{ 2 }	The DiSEqC™ signal is repeated twice



Installation

UFO®

“UFO®*mini*” and “UFO®*micro*” are satellite systems specific to Kathrein. Please refer to the relevant operating manuals for the necessary setting parameters.

UFO® <i>mini</i>	{OFF}/{ON}	
(2)	Remote Freq.	{XXXX}
(3)	UFO® <i>micro</i>	{OFF}/{ON}/ {RESET}

Press the  button to access the main menu. Activate the desired sub-menus using the specified number buttons -[X] or with the programme buttons /. The selected sub-menu is framed in colour and the associated help text is displayed. Then press the  button to access the activated sub-menu. Branch into the additional sub-menus in the same way.

The changes you make are only applied if you press the  button in response to the “Save changes?” prompt after you have exited the menu by pressing the  button. When you exit DiSEqC™/UFO®*micro* settings, an additional message appears confirming activation of UFO®*micro*.


Various (display time, RC, LCD, download, factory reset)

Path: MENU>Main menu>Installation>Various

Display time

1...9 The banner display time (programme status information) can be set from 1 to 9 seconds.

function

As an alternative, signal quality can be assigned to the  button.

Banner Displays programme status information!
(can be immediately switched back off by pressing the button again)

Signal quality Displays the “Channel parameters and signal” menu. This functions facilitates optimal antenna alignment.

Installation

LCD display settings

LCD backlight Used to set the illumination level of the display in 6 stages.

Scroll speed Used to set the speed of the scrolling text in 5 stages.

Time indicator

OFF The time indicator is switched off in standby.

ON The date and time are displayed in standby.



If the time indicator is switched to “ON” in standby, the power consumption of the receiver increases to approx. 7-8 Watts.

(power consumption is typically < 2 Watts when OFF).

Download

Download-Over-Air (see “Software and list update via satellite”)

Factory reset

With the factory reset you can **separately** restore

Device settings

and

the channels in favourites list 1 (general)

to the delivery status.

Select the appropriate sub-menu and enter the PIN.

Installation

Perform factory reset on device settings:

PIN (security code):		00000
Time offset:		+1h/+2h - depending on mfg. date
Menu language:		German
Character set:		Latin
Signal paths:	TV Scart	RGB
	VCR Scart	CVBS
	TV>VCR	OFF
	VCR signal	RGB/CVBS
	Picture format	4:3
	VCR record	Standard
	Digital audio	Standard
LNB	LNB	ON
	In standby	OFF
DiSEqC™	22kHz signal	High/Low
	Tone burst	OFF
	DiSEqC™	ON
	DiSEqC™ Repeat	OFF
Satellites:	Enable ASTRA	ON
	Enable EUTELSAT13	ON
	Enable all others	OFF
	LO1	9750 MHz
	LO2	10600 MHz
	Orbit pos. ASTRA	1
	Orbit pos. EUTELSAT13	2
	Uncom. switch	OFF
Various	Display time	4 Seconds
	Function	Banner
LCD	Brightness	5 (maximum/range 1...5)
	Scroll Speed	3 (middle/range 1...5)
	(speed of scrolling text)	
	Time indicator	OFF
Name of favourites list		Delivery status

Note:

*If you perform a factory reset, then check the setting for Winter/Summer time (time offset).
Also change the menu language if necessary.
Note that if you changed your PIN, it is reset to **00000** by the factory reset.*

Installation

Restore channels in favourites lists 1 and 8

If you accidentally delete the channels in favourites list 1 (GENERAL) or 8 (HOTBIRD), you can reset the unit to delivery status here. Your other favourites lists (F2... F7) do not change.

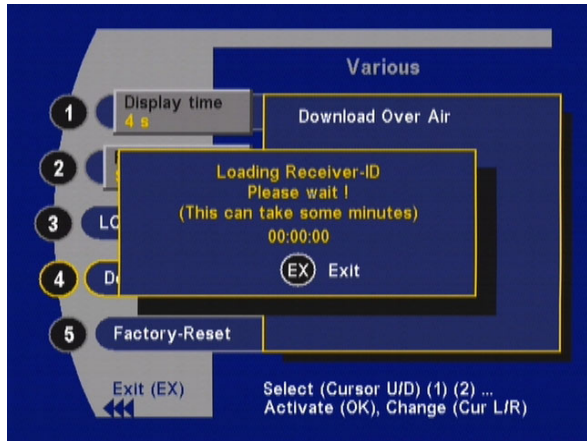
Note:

Restoring favourites lists 1 and 8 is only possible if the pool has not been deleted.

Access to the channel pool is PIN protected. If the channels in the pool have nevertheless been deleted, reload the channel lists via Download-Over-Air.

Download-Over-Air (Software update via satellite)

In the "Download" sub-menu you can install new operating systems and channel lists (individually) onto your receiver via the ASTRA satellite (update by Download-Over-Air). For this, your reception system must be aligned to the ASTRA 19.2° East satellite.



Note:

To view your receiver's software version, press "i" in the main menu (it is also displayed during downloading).

Note that when you update the channel lists, your custom channel arrangement in both sets of eight favourites lists (TV and RADIO) will be overwritten by the updated programme list.

Installation

- a) Start the software download from the "INSTALLATION" menu after selecting the "Download" menu (6) by pressing the **OK** button. The download then runs through a number of phases, with each phase accompanied by relevant information messages. You can abort the various phases at any time.
- b) Search for the download channel on the ASTRA satellite. This search is performed the first time the unit is operated and may take a few minutes. When the unit is restarted the saved download channel is set directly.
- c) Load the receiver identifier. This operation may also take several minutes.
- d) You can select data from the data carousel, depending on availability (operating system/channel lists).
- e) After choosing option 1 "Receiver software", the following menu is displayed:

CAUTION!
Download software version: VX.X
Download software version: VX.X
Continue?

OK = YES EX = NO

- f) Press the **OK** button to perform a version check. If there is an older version on the data carousel, a message appears telling you so. You can abort the download prematurely if necessary.
This information is determined by the CAM, or the Smartcard and does not originate from the receiver.
Note: Depending on the load on the data carousel, the load operation may take as long as an hour!
- g) Save the downloaded data.



You must not switch the unit off during this phase!

Video recorder/PVR connection



Connect your recorder and the receiver (VCR socket) using a Scart cable. If you have a S-VHS (S-Video) recorder, from the "Installation" menu select the "Signal paths" sub-menu and change the selection (TV Scart VCR) so that the "YC" signal is output at the VCR socket.

Recording




To record a programme now running, set your recorder to record. Note that the volume on the receiver is set to full during recording (L 20 on the 7-segment display). This is the only way to obtain the full audio quality on subsequent playback. Also make sure that you do not perform any other actions on the receiver during this direct recording process – any on-screen displays would be recorded along with the programme.

For recording with the timer, refer to the "Timer" section.

Playback

Playback via your recorder i.e. transmission of the signal from the VCR to the TV set, takes place automatically when the receiver is operating or in standby. The switching voltage from the recorder is detected by the receiver and the VCR signal is switched through to the TV set. The 7-segment display shows "VCR". You can switch to the receiver channel at any time, even without stopping playback on your recorder. To do so press the  button (green). To switch back to the recorder playback, press the  button (green) twice.


Note:





The  button (green) controls the TV switching voltage (pin 8) at the TV Scart socket. The TV switching voltage is activated when the video signal from the receiver or from the recorder is switched to the TV set. During normal operation, without a recorder, use the  button (green) to switch between the receiver channel and an additional video signal to the TV set. This additional video signal to the TV set might, for example, come from your existing "analogue" antenna, from a cable connection or from a DVD player connected directly to the TV. The display of video signals available on the TV set is dependent on the specification of your TV set. In the above operating mode with a recorder during playback, the  button (green) would thus set the video sources from the TV, the recorder and the receiver one after the other.

Video recorder/PVR connection

Return path

The video signal from the TV set can be returned to your recorder in standby mode.


If you want to use this function, from the "Installation" menu select the "Signal paths" sub-menu and then choose "VCR signals". Open the "VCR signals" menu using the  button.

Activate the "TV -> VCR" input field using the  button and change the selection to "ON" with the   buttons then confirm the selection with .


Audio settings

Setting the volume



Set the required volume level using the  buttons on the remote control of the receiver. A bar indicator is displayed on the screen to show the set volume.

Muting

Press the  button to mute the sound. “Mute” is displayed.



Press the button again to restore the sound.

Digital output



Always follow the operating instructions for your Dolby Digital system.

The receiver has an audio output for AC3 format (Dolby Digital). This gives you the opportunity to bring cinema quality sound into your living room. Connect the digital audio output only to an appropriate system.



Only a few programme providers broadcast the AC3 format. If no AC3 signal is received, you can only make the normal stereo or mono settings and choose the languages that are broadcast.

Digital/analogue – audio mode

In digital satellite technology the picture and sound are generally transmitted in digital format (MPEG-coded). Where the term “Analogue audio mode” is used in this section, it signifies that the digital signals are converted in the unit into audio signals and made available at the “Left” and “Right” cinch sockets and at the TV and VCR Scart sockets in analogue format.



By contrast, in “Digital audio mode” the signals are transmitted in digital format via the “Digital” cinch socket to corresponding terminal devices, such as a Dolby Surround system, for decoding. Two-channel stereo signals (encoded

Audio settings



in PCM format) or complex multi-channel surround signals (Dolby Digital/AC 3) can be transmitted on the digital socket. Press the  button (yellow) to access the “Digital/analogue audio mode” menu. You can use this menu purely as an information display and press the  button (yellow) again to quit it immediately, or you can change various settings.

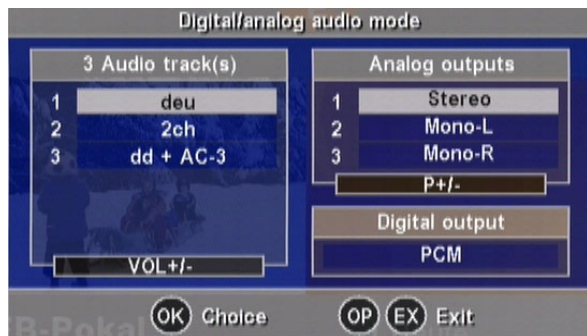
Analogue outputs

In the right-hand window you see the current signal status of the connections at the rear of your satellite receiver. An analogue audio signal is received at the cinch sockets and via the TV and VCR Scart sockets.

In some cases, bilingual programmes are also broadcast over the two “Left” and “Right” stereo channels. If this is the case, you would hear German through the left channel and English through the right, for example. To hear just one language, use the  button to select “Mono-L” or “Mono-R” and confirm your selection by pressing the  button. The current selection is highlighted in white.

Most bilingual or multilingual programmes are however broadcast on separate audio tracks. In this case, the left-hand window would display German under 1 and English under 2, and you would hear both languages in stereo.

Use the  buttons to select the language you want and confirm your selection by pressing the  button. The currently selected language (or audio track) is highlighted in white.

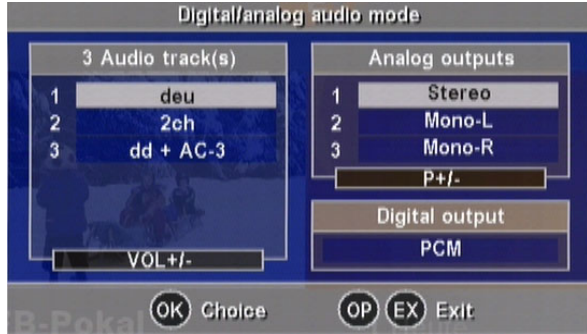


“Stereo” displayed in the following screenshot indicates that only one language is being transmitted in stereo. The content of the left-hand window is dictated by the broadcaster. Line 1 might indicate “Deutsch” or “ger” instead of “Stereo” for example.



Audio settings

Digital output

In the right-hand window you see the current signal status at the digital output (= digital cinch socket).





If “PCM” is displayed, the digital signal is encoded in PCM format. If “AC 3” is displayed, the audio signal is encoded in Dolby Digital format.

If available, select the language or audio track you want from the left-hand window by pressing the  button and press the  button to confirm your selection. The currently selected audio track is highlighted in white.

The number of languages and audio tracks offered is dictated by the programme provider.

A PCM-encoded language or audio track is always displayed. You may, however, also be offered two or more PCM-encoded languages or audio tracks with one or more in AC3 format.

For radio programmes up to 20 PCM-encoded audio tracks may be available, which you can select using the  button and confirm by pressing the  button.

“AC 3 – general”:

When you select “Dolby Digital/AC 3” mode for digital audio, the digital output is automatically switched to AC 3 as soon as a relevant coding is transmitted (see “Signal paths/digital audio”).

Using the front panel

If you have misplaced your remote control, or if the batteries are empty, you can still operate your receiver from the front panel.

Backup operation



The power switch, the **TV/R** button for switching between TV and radio mode and the **▼** and **▲** buttons for selecting channels are located on the front panel.

When the receiver is switched on using the power switch, or after a short power cut, the receiver switches to the state it was in previously i.e. **ON** or **Standby**.

ON = dn / up

If the receiver was previously in standby mode, press one of the buttons (Ch up) **▲** or (Ch down) **▼** to switch the unit on, depending on the display.



Because there are no number buttons, no password/PIN-protected functions can be displayed.

Receiver to receiver data transfer

Your receiver is able to receive data from another receiver via its RJ11 port. For this, the two receivers are connected with a null modem cable. The transmitting receiver is the “master”, and the receiving receiver is the “slave”.






Only possible between two UFS 702 receivers!!!!

Preparation

The master and slave are both switched on. Then the RJ 11 ports of the two receivers are interconnected by a zero-modem cable.

Channel list download

Master:

- Press the   buttons simultaneously on the “master” unit
- Press the  button to transfer the TV/Radio lists

Slave:




Do not switch the receiver off while data is being saved – the red LED comes on (Flash IC (memory) can be damaged)!

First “Storing” then a progress bar is displayed!



Download operating system

Master:

- Press the   buttons simultaneously on the master unit
- Press the  button to transfer the operating system

Slave:

Do not switch the receiver off while data is being saved – the red LED comes on (Flash IC (memory) can be damaged)!

First “Storing” then a progress bar is displayed!

Technical appendix

Technical features

Channels

- 2,000 memory slots each for TV and radio programmes
- 8 customisable favourites lists each with 1,000 channel slots (e.g. for SPORT, NEWS, MUSIC categories, etc.)
- 8 satellites (individually activated)
- 24 characters for channel/station names
- Channel selection by 1, 2 or 3 digit input
- Channel selection via UP/DOWN buttons
- Channel switching for two programmes with one button (“Last programme”)
- Quick selection of last four channels viewed (“Channel hopping function”)
- Selection of channels from channel list
- Channel pool sorted in alphabetical order and by satellites, FTA, new FTA, encrypted and new encrypted channels
- Copy, sort, delete channels – all in a clearly arranged menu

Search

- Automatic satellite search (SCPC suitable) for TV and radio programmes with satellite selection, High/Low band, fixed and freely definable symbol rates for FTA (and encrypted) channels
- Automatic transponder search, finds TV/radio programmes on a transponder
- Manual input of all reception parameters (for experts)
- Channel renaming

OSD (On Screen Display)

- User-friendly menu structure with variable and fixed transparency
- Integrated operating instructions and function description for remote control
- Menu languages: German, English, French, Italian, Spanish, Dutch, Turkish and Portuguese

EPG (Electronic Programme Guide)

- Quick programme information on current and upcoming programmes
- Programme preview with additional details several days in advance (depending on programme provider)
- User-friendly data import (channel, start and end, date) into timer

Video/audio

- TV socket: RGB, YC (S-Video /SVHS), CVBS
- VCR socket: YC and CVBS
- Automatic VCR-to-TV switch-through
- Automatic TV-to-VCR switch-through in standby (selectable)
- Digital output for PCM or Dolby Digital/AC 3-coded audio signals
- Separate cinch sockets for L/R audio

Technical appendix

- Volume adjustable in 20 stages, mute
- Language selection for multilingual TV programme broadcasts and additional channel selection in radio mode
- Stereo, 24-bit 96 kHz audio

Additional features

- On-unit controls for channel (+/-), volume (+/-) and radio/TV switching
- 16-character LC display
- Timer for eight events (TV or radio)
- Timer with VPS function
- Optimum alignment of parabolic antenna by signal strength and reception quality
- Videotext/teletext reinsertion (for viewing on TV)
- Internal teletext (videotext)
- 800 page teletext (videotext) memory
- Prepared for UFO[®]mini, UFO[®]micro (Kathrein-specific)

Software Update

- Via data interface (RJ 11 port), separately for:
 - a) Operating system
 - b) TV channel lists
 - c) Radio channel lists
 - d) Unit setting
- Via satellite separately for:
 - a) Operating system
 - b) TV and radio channel lists

General

- Remote control 36 buttons/4 addresses
- Power switch

Technical appendix

Type	CE		UFS 702si	UFS 702sw
Order no.			20210079	20210080
Colour			Silver	Black
RF properties				
Input frequency range	MHz		950-2150	
Input level range	dB μ V		44-83	
Reception threshold (EB/NO)			< 4.5	
TV system, Video				
Modulation, FEC, demultiplexer			DVB-S standard	
Video resolution			CCIR 601 (720 x 576 lines)	
Input data rate	MSymb/s		2-45	
Video decoding			MPEG-1 and 2 compatible	
Bit rate	MBit/s		1.5-15	
Frequency range	MHz		0.02-5	
Output voltage	V _{ss}		1	
S/N	dB		> 53	
TV system, Audio				
Audio decoding			MPEG-1 and 2, Layer 1 and 2	
Sampling rate	kHz		32/44,1/48	
Frequency range	kHz		0.04-20	
Output voltage	mV _{ss}		Typical 770	
S/N	dB		> 65	
Memory				
Flash RAM	MB		2	
SDRAM	MB		8	
Processor clock speed	MHz		150	
Power supply				
Power supply voltage	V/Hz		230/50 \pm 10 %	
Power consumption (power/standby)	W		< 22/< 2	
LNB supply vert./horiz.	V / mA		14/18/Max. 400	
Control signal	kHz		22; DiSEqC™ 1.1; UFO® <i>micro</i>	
Connections				
Sat IF input/output			2 x F socket	
TV/VCR output			2 x Scart socket	
Audio output (analogue)			2 x Cinch socket	
Audio digital output (electrical)			Cinch socket	
Audio digital output (optical)			Standard OWG (IEC 952)	
Data port			RJ 11 socket	
General				
Ambient temperature limit	°C		+5 to +40	
Unit dimensions	mm		280 x 50 x 180	
Weight	kg		1.2	

Technical appendix

Accessories

- 1 infrared remote control (RC 660)
- 2 batteries 1.5 V, type: LR 03, size: AAA (micro)
- 1 Scart cable
- 1 operating manual

Scart socket assignment

Signal	Pin no.	TV	VCR/AUX
Right audio output	1	X	X
Right audio input	2		X
Left audio output	3	X	X
Audio earth	4	X	X
Blue earth	5	X	X
Audio left input	6		X
Blue signal	7	X	X
Switching voltage	8	X	X
Green earth	9	X	X
Data signal	10		
Green signal	11	X	X
Data signal	12		
Red earth	13	X	X
Data earth	14		
Red signal (C)	15	X	X
Blanking signal	16	X	X
Video earth	17	X	X
Blanking signal earth	18	X	X
Video output (FBAS/Y)	19	X	X
Video input	20		X
Connector shield	21	X	X

VHS/S-VHS switching

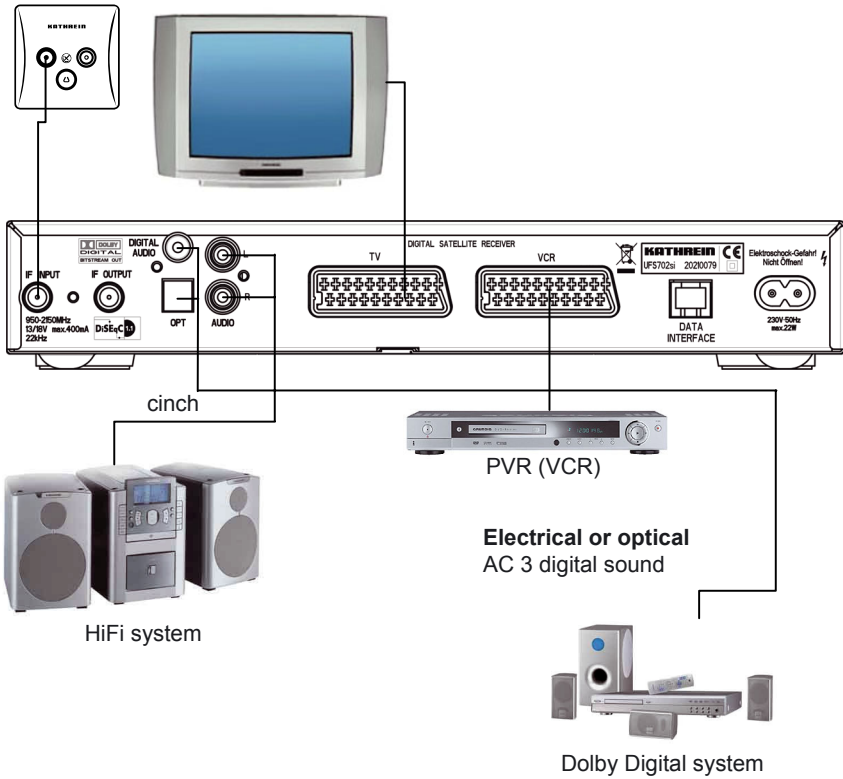
The Scart sockets are switchable between VHS and S-VHS. The switch is made by selecting "System set-up" - "TV settings" - "AV settings" from the main menu.

VHS (RGB): The RED signal is connected to pin 15, the CVBS output to pin 19.

S-VHS (C/Y): The C output is connected to pin 15, the Y output to pin 19.

Technical appendix

Connection example



Short technical guide

Channel package

The channel package for a digital transponder normally includes several TV and radio channels. Each channel package has a fixed assignment for the transponder transmission frequency, for polarisation (horizontal or vertical), for the symbol rate and for the Viterbi rate or error rate.

DiSEqC™

DiSEqC™ (Digital Satellite Equipment Control) is a communication system between a satellite receiver (master) and the peripheral satellite components (slaves), such as LNBs, multi-switches, rotating antenna systems.

It is a single master/multi-slave system, i.e. there is only ever one master in the satellite system. All activities start from the master.

DiSEqC™ components

If DiSEqC™ switching matrices are cascaded, the master receiver must transmit the DiSEqC™ signal several times, so that all DiSEqC™ multi-switches in the cascade receive their commands.

These days, DiSEqC™ components (slaves) must be reverse compatible, i.e. respond to the analogue switching criteria from receivers that are only equipped with H/V and 22 kHz control signals.

A DiSEqC™ switching matrix will work with analogue switching criteria until the DiSEqC™ command from the master is received. All analogue switching criteria are then ignored.

DVB MPEG-2

DVB is the abbreviation for Digital Video Broadcasting. DVB-S refers to the transmission method (S = satellite). MPEG is the abbreviation for Moving Picture Experts Group, a working group that formulates internationally applicable standards for the digital compression of video and audio. MPEG-2 has established itself as the standard for compression of digital TV signals. MPEG-2 works up to a data rate of 100 MB/s.

EB/NO ratio

The EB/NO ratio is a measure of the signal to noise ratio of a digital signal. The value is not identical to the C/N value familiar from analogue reception technology. At EB/NO values below 5 dB no reception is normally possible.

FEC

FEC is the abbreviation for Forward Error Correction. The FEC error rate corresponds to the Viterbi rate.

OTR

One Touch Recording

Short technical guide

PID

The PID (Packet IDentification) number is an identification number for video signals and audio signals in the digital data stream of DVB-MPEG-2 signals. The receiver uses the PID number to create a unique assignment for the video and audio data transmission. The PCR PID is the identification number for the synchronisation signal. The PCR PID is normally identical to the video PID. For programmes broadcast in multiple languages, the audio PID can be entered manually to assign a different language to the TV programme. After the PID is entered, the digital receiver automatically selects the audio data identified by the PID number from the data stream and assigns it to the video signal.

PIP

Picture In Picture function

Symbol rate

The symbol rate describes the quantity of data that is transmitted per second. The symbol rate is measured in MSymbols/s and is equal to the number of symbols received per second.

Transponder

A transponder is a satellite channel which transmits TV and radio signals. A satellite has several transponders.

Analogue transponders transmit only one TV channel and possibly multiple radio programmes on the transmission frequency.

Digital transponders simultaneously transmit several TV and several radio programmes at a transmission frequency. If a programme provider is broadcasting several TV channels via a digital transponder, we refer to the provider's channel package. The terms "digital transponder" and "channel package" have the same meaning.

Video bit rate

The video bit rate describes the quantity of data from the digitised video signal that is transmitted per second.

Viterbi rate

The Viterbi rate (code rate, error rate) characterises the error protection used by the programme provider. The DVB standard provides the following values: 1/2 - 2/3 - 3/4 - 5/6 - 7/8

Short technical guide

Glossary

AC 3	Output for Dolby Digital signal
Audio output	Sound output on the receiver
AV programme pos.	Preferred programme position on TV set for Scart input
Band	Frequency band of a satellite: Low band and High band
CA	Conditional Access (for decoding of encrypted programmes)
CI	Internationally standardised interface for CA modules
Decoder	Decoder for Pay TV
DiSEqC™	Control system between receiver and LNB, multi-switch
DVB	Digital Video Broadcasting
EB/NO [dB]	Power density per unit of information
EB/NO ratio	Digital signal to noise ratio
EPG	Electronic Programme Guide
Favourites list	List of selected programmes extracted from the channel pool
GHZ	Abbreviation for Gigahertz (Giga = billion)
LED display	Display on receiver
LNB	Low Noise Block Converter
Mute	Muting of sound
OSD	On Screen Display
PAL	Analogue TV standard
Pay TV	Television channels available on subscription (e.g. PREMIERE)
PCMCIA	Standard for internal decoder interface for pay TV
PCR	Programme Clock Reference
PID	See Short Technical Guide
PIN	Personal Identification Number
PIP	See Short technical guide
Pool	Channel pool - Collection of all receivable TV and radio channels
Receiver	Satellite receiver
RGB	Video signal made up of three individual colour signals (red, green, blue)
Satellite IF signal	Receiver input signal
Scart cable	21-pin connecting cable (e.g. receiver/TV)
Smartcard	Card from Pay TV provider to decode its programmes
Standby	Standby mode
S-VHS	Super Video Home System (video recorder standard)
Symbol rate	Rate of data transmission of satellite signal
Time-shift function	Time-shifted playback
Timer function	Clock function for pre-programmed switch on and off times
Transponder	See Short technical guide
UFO®<i>micro</i> and UFO®<i>mini</i>	Kathrein-specific satellite signal processing systems

Short technical guide

VCR connection	Video recorder connection
Viterbi rate	See Short technical guide
YC	(Y = brightness, C = colour signal) Video signal standard for S-VHS recorders
Zapping	Frequent programme changing using the remote control

Error detection/troubleshooting and service

In the event of a malfunction, first check all the cable connections and operating states:

1. Receiver and TV set power plugs are connected to wall socket
2. Antenna cables on receiver input
3. Receiver and TV set correctly connected by a Scart or cinch cable
4. Audio connections are made to Hi-Fi or Dolby Digital system as appropriate
5. Receiver and TV set (Hi-Fi/Dolby Digital system) are switched on (check power indicators)
6. Receiver is responding to remote control

A selection of troubleshooting tips is offered below.

Problem	Cause	Remedy
"No signal!!" warning appears on some or all channels	Antenna signal of satellite reception system missing or faulty. Incorrect oscillator frequencies set in LNB configuration menu.	Consult an antenna specialist to have it checked and repaired as necessary. On "Installation" menu check LNB configuration for satellite in question: High L.O. "10.600" GHz and Low L.O. "9.750" GHz, and change as necessary.
Remote control no longer responding	Receiver or remote control command set may have been unintentionally changed	Set infrared code 1, as described in operating manual under "Remote control RC 660"; check batteries
Wrong time being displayed	"Summer Time" setting wrong. An incorrect time was imported from the reception signal	On "System set-up" - "Time set-up" menu check "Summer Time enabled" and change as necessary. Switch off receiver at mains switch from current channel, wait 10 seconds and then switch back on
The following channels cut out or "Poor signal or no signal!!" appears: PRO 7, SAT 1, Kabel 1, DSF, N 24, Tele 5, 9 Live, HSE 24 and Sonnenklar TV	DECT telephones operate on the same frequency as these channels. Interference may occur due to inadequate level or poor shielding of cable	Consult your antenna specialist
Black or blue screen, no on-screen displays	Scart connection to TV deactivated by accidentally pressing 0 button	Keep pressing the 0 button until the TV picture reappears on-screen

Error detection/troubleshooting and service

Search for new channels	Channel change
Search for new channels that are not yet stored.	A channel has moved or is no longer present on the original frequency. First delete the old channel as described and then start a search to find the channel at its new position.
<u>See search, page 34 ff</u>	<u>See channel management page 24 ff</u>
<i>Depending on the information you have available, you can start a satellite, transponder or manual search. You only need to know the transmitting satellite for the satellite search.</i>	<i>Here you can delete a channel as described.</i>
<u>See channel management page 24 ff</u>	<u>See search, page 34 ff</u>
<i>Here you can move, delete and copy channels as described.</i>	<i>Depending on the information you have available, you can start a satellite, transponder or manual search. You only need to know the transmitting satellite for the satellite search.</i>
	<u>See channel management page 24 ff</u>
	<i>Here you can move, delete and copy channels as described.</i>

If, despite studying this operating manual, you still have questions about getting started with the unit or using it correctly, or if unexpected problems occur, please contact your specialist dealer. The Kathrein customer hotline is also at your disposal.

Phone: 0900/1122240*

* (0.89 EUR per minute on land lines of Deutsche Telekom AG)

936.2868/D/01/07/ZMT - Technical data subject to change.